# The Future of Criminal Violence: Juveniles Tried as Adults

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Juveniles tried as adults (JTA) represent a select and small subsample of juvenile offenders. This study seeks to provide a profile of habitually violent JTAs transferred to the adult penal system and to compare them with their adult counterparts. Twenty-nine incarcerated violent male juveniles tried as adults were compared with a sample of 27 incarcerated violent male offenders across demographic, neuropsychological, criminal history, psychopathy, and substance abuse variables. The JTAs were characterized by a high rate of gang membership (96%), substance abuse (alcohol, marijuana, and phenylcyclidene), and use of guns. In the juvenile sample, 65 percent used guns in violence not leading to arrest, and 93 percent used guns in a violent crime leading to arrest. Juvenile offenders were similar to their adult counterparts in patterns of criminality, although adult offenders had higher psychopathy scores. Both groups revealed generally intact neuropsychological functioning with the exception of a higher rate of perseverative responses in the adult sample. The results are discussed in terms of the implication of the degree of violence in a young offender population.

**J Am Acad Psychiatry Law 28:38–46, 2000**

Juvenile delinquency has been the subject of psychological commentary and debate for most of this century. Early reformers, using the case study method, focused on the youthful offender's dysfunctional family, upbringing, and social milieu (e.g. Healy, 1915, and Aichorn, 1935).[1,2] These findings offered hope that a therapeutically centered approach, accomplished through the development of a network of child guidance clinics and a system of juvenile courts, could rehabilitate the wayward youth. Unfortunately, criminal behavior by adolescents persisted, and many delinquents grew to become career criminals.[3] As a consequence of this realization, the search for the causes of delinquency broadened beyond psychoanalytic and sociological formulations. Investigators studied applications of prevailing behavioral, ecological, subcultural, labeling, and biological theories as salient in the complex etiology of juvenile crime.[4] Sadly, delinquency, including homicide and other violent crimes, proliferated.[5]

Violence as a whole has increased in the 10- to 17-year-old population, with murder arrest rates rising from 5.4 per 100,000 to 12.7 per 100,000 from 1983 to 1991.[6–8] High profile killings by juveniles, such as the Arkansas and Colorado schoolyard shootings, draw widespread media attention to juvenile crime, further contributing to confusion and fear regarding appropriate disposition for violent youth. Studies have shown that a majority of juvenile of-

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fenders report being under the influence of drugs or alcohol at the time of, or shortly prior to, their offenses.[9-13]

### Juveniles Tried as Adults

Although the juvenile justice system has rehabilitation as its prerogative, in several jurisdictions, certain juvenile offenders with a history of habitual and violent crime are deemed unfit to remain in the juvenile court jurisdiction and are thereby tried as adults. In California, a youth is found by the court to be "unfit" to be tried as a juvenile after consideration of five major factors: the subject's degree of criminal sophistication, rehabilitation potential prior to termination of the court's jurisdiction, prior delinquent history, success of previous rehabilitation attempts, and the circumstances and gravity of the offense charged. The decision to transfer a minor, age 14 or older, to adult court can be based upon a combination of one or more factors found to render the individual unamenable to the juvenile system.[12] Nationally, the age parameters for minors to be tried as adults vary. Some states define youth of the age of 16 and 17 automatically as adults, while others allow juvenile jurisdiction for offenders under the age of eighteen.[13] Bureau of Justice statistics for the years 1990, 1992, and 1994 examining 75 of the largest counties across the nation cite a total of 1,638 juveniles prosecuted as adults, representing .4 percent of all juvenile offenders.[13]

### Developmental Factors Associated with Juvenile Violence

The increased degree of severity of crimes committed by juveniles prompted a national shift from rehabilitation to punishment for juvenile offenders.[14-16] Gang involvement accelerated and, in some arenas, evolved into organized "criminal training" units (e.g., Mexican mafia) who recruit members precisely because of their juvenile status.[17] As a result, the acts of juvenile offenders have surpassed statutory crimes (e.g., runaways), which characterized the juvenile delinquent of prior decades, into the riskier types of felonious activities that previously were typical of older, hardened criminals (e.g., drive-by shootings, carjackings, home invasion robbery/murder/rapes).[18, 19] Others have attributed the adoption of an aggressive and confrontational style by youthful offenders as one reflecting the "subculture norms of retaliation."[20]

### Risk Factors Associated with Juvenile Violence

Recent research has begun to identify some of the specific risk factors that are associated with the development of delinquency.[21] Rapp and Wodarski[21] also found high risk social and environmental variables among youthful offenders that confirmed a multideterminant panoply, including ineffective parenting, parental alcoholism, and disrupted parental bonding. Myner and colleagues[22, 23] highlighted personal risk factors such as age at first conviction, alcohol abuse, length of incarceration, and placement. Others[24-28] confirmed the presence of personality disorders, moderately high psychopathy scores, and chaotic family style among youthful offenders.

Understanding the attraction of gang life for these young men requires an appreciation of the role of the family as the context for developing a value of violence. In work by Lewis[29] and Stein and Lewis,[30] the social/familial histories in a sample of 66 incarcerated delinquents were reinvestigated after collateral data documented histories of violent victimization of the sample. Although the subjects had initially denied their victimization, upon confrontation with contradictory material, 80 percent admitted their own abuse histories. The incontrovertible harm of childhood abuse was articulated by Lewis and colleagues[31-32] in comparison samples of delinquent and nondelinquent youths. They found that a constellation of family abuse and violence was the most significant correlate to criminality distinguishing the two samples.

The purpose of the current study is twofold: (1) to describe the demographic, criminal history, and neuropsychological functioning among a sample of high violence juveniles adjudicated as adults; (2) to compare the juvenile sample with a sample of habitual and highly violent adult offenders.

## Method

### Subjects

Fifty-six voluntary participants, selected inmates from a California prison reception center, comprised the study sample. Twenty-nine subjects, who were arrested as juveniles, tried as adults (JTA) and transferred to the adult system, comprised our juvenile offender group. Subjects were tested between 1995 and 1999. Twenty-seven subjects over the age of 30 comprised the adult offender (Adult) sample. The JTA subjects were all arrested prior to their eigh-

teenth birthday, and ranged in age from 17 to 24 at the time of the testing. The adult sample ranged in age from 30 to 43. Subjects in this study met the criterion for high violence (defined under "Ratings") and did not have a history of severe psychiatric illness.

### Procedures

All subjects were voluntary participants. Inmates identified by housing unit records as meeting the study's inclusion criteria were approached by custody staff and asked if they would be willing to speak to one of the two authors (P.K. or S.S.) who explained the study to each potential participant. The "Subject Informed Consent" was read to each subject as he read along. After all questions were answered, subjects were asked if they would like to participate and when they consented, they signed the "Informed Consent." Records and data were maintained in a confidential and locked file cabinet in one of the author's (P.K.) office.

In the adult sample, five subjects were rejected when it was learned that they had been identified or treated for a psychiatric condition, and two subjects were released during testing because of an inadequate level of cooperation. None of the juvenile sample was rejected.

### Measures

1. A standardized clinical interview was conducted, including the Brief Psychiatric Rating Scale (BPRS)[33] to establish current mental functioning.
2. Hare Psychopathy Checklist-Revised[34]; ratings were made by two of the investigators (S.S. and P.K.) following standard administration procedures.
3. A neuropsychological battery was administered, including the following measures: Wechsler Adult Intelligence Scale-Revised (WAIS-R),[35] subtests Information, Similarities, Digit Span, and Block Design; Wechsler Memory Scale-Revised (WMS-R),[36] subtests Logical Memory I and Visual Reproduction I; Rey Auditory Verbal Learning Test (RAVLT)[37]; Hooper Visual Organization Test (HVOT)[38]; Verbal Fluency (FAS)[39]; Trail Making Test, parts A and B[39]; and the Wisconsin Card Sorting Test (WCST).[40] All tests were administered according to standard administration instructions published in the test manual and were conducted by two of the investigators (S.S. and P.K.).

### Ratings

Violence ratings were based upon interviews, collateral correctional staff reports, and reviews of available prison records that contained "rap sheets" in which the presence of a history of at least two documented acts of serious violence against others, resulting in great bodily harm, was established. The time period was lifetime prevalence. In addition to the record review, as a part of the broader clinical interview, each subject was asked to describe and enumerate violent exchanges that had occurred as a juvenile and as an adult, with a weapon and without a weapon, in both institutional and community settings. Examples of great bodily harm included criminal charges and/or convictions of murder, attempted murder, assault, rape, armed robbery, felonious spousal battery; or documentation of assaultive behavior in the community or institution resulting in great bodily harm toward others but that did not result in criminal charges. All subjects were rated by the first two authors (S.S. and P.K.) and were included in the study if the raters agreed on the violence designation.

## Results

### Comparison of Adult Violent Recidivists and JTAs

Table 1 represents ethnic, educational, and relevant demographic variables of the present sample.

The ethnic representation of the two groups was significantly different ($p = .006$), with a preponderance of non-Hispanic Caucasians in the Adult sample (44.4%) contrasted to a predominantly Hispanic JTA sample (69%). In the Adult sample, one-quarter was African American (24.6%) and Hispanic (25.9%). Of the remainder of the JTA sample, 10 percent self-identified as "white," 20.7 percent identified themselves as "black," and 6.9 percent were Asian. The JTA sample also had significantly less formal education than the Adult recidivist sample ($p = .026$). Two-thirds of the JTA sample did not complete high school (69%) in contrast to one-third (37%) of their adult counterparts. Sixty-three percent of the Adult sample completed high school and attended some college in comparison with 30 percent of the JTA sample. Although a greater percentage of Adults completed school, there was no statistically significant difference between groups on mean years of education. Subjects also had similar numbers of head injuries, past suicide attempts, and prior psychi-

**Table 1** Demographics: Adult and JTA Subjects

| Variable | Adults $n = 27$ | JTA $n = 29$ | Statistic $\chi^2$ | $p$ |
|---|---|---|---|---|
| Race | | | | |
| White | 44.4% | 10.3% | 12.5 | .006 |
| African American | 24.6% | 20.7% | | |
| Hispanic | 25.9% | 62.1% | | |
| Asian | 0% | 6.9% | | |
| Education level, $n = 28$ | | | | |
| Under 12 years | 37% | 69% | 7.3 | .026 |
| 12 Years | 40.7% | 27.6% | | |
| 13–15 Years | 22.2% | 3.4% | | |
| Hospitalizations | 0 | 0 | NA[a] | NA |
| Suicide attempts | 0 | 1 | NA | NA |
| Mean (SD) | | | | |
| Age, years | 34.7 (3.5) | 19.9 (1.9) | 394.9 | .0001 |
| Education, years | 11.3 (2.4) | 10.4 (1.6) | 2.9 | .10 |
| Head injuries | 5.5 (19.4) | 3.3 (9.2) | .29 | .60 |
| Number of arrests | 39.8 (48.2) | 8.6 (5.9) | 11.9 | .001 |

[a] NA, not applicable.

atric hospitalizations. The Adult group had a significantly higher average number of past arrests (39.8) compared with the JTA sample (8.6); however, the differences are likely attributable to age cohort effects.

Both the Adult and the JTA sample reported relatively high, and not significantly different, rates of substance abuse for alcohol (Adults = 65.4%, JTA = 72.4%) and marijuana (Adult = 69.2%, JTA = 79.3%). Statistically significant between group differences were noted for three drugs. The Adult sample had higher rates of heroin abuse ($\chi^2$ 2 (2) = 12.2, $p = .0001$; Adults = 40%, JTA = 18.8%), LSD abuse ($\chi^2$ (2) = 5.6, $p = .02$; Adult = 42.35, JTA = 13.8%), and intravenous (i.v.) drug use ($\chi^2$ (2) = 16.6, $p = .0001$; Adult = 57.7%, JTA = 6.9%). Moderate to high rates of substance use history that was not statistically different was noted for amphetamines (Adult = 50%, JTA = 31%), cocaine (Adult = 50%, JTA = 37%), and inhalants (Adult = 30.8%, JTA = 31%). Rates of phenylcyclidene (PCP) use were not statistically different between the two groups, with the Adults at 38.5 percent and the JTA at 44.8 percent. Both groups had nonsignificantly different rates of barbiturate abuse (Adults = 30.8%, JTA = 10.3%).

Table 2 represents the presence of psychopathic personality traits as measured by the Hare Psychopathy Checklist-Revised (PCL-R) by high (≥30), medium (20–29), and low (≤19) scores. The average Hare PCL-R score for the Adult sample fell in the high psychopathic range ($M = 31.6$; $SD = 6.3$) and was statistically different from the moderate range mean PCL-R score of the JTA sample ($p < .0001$). Although the criminal histories of the two samples are similar, the Adult sample had significantly more subjects meeting the PCL-R cutoff of 30 for psychopathy (70.4%). This finding suggests that habitual violence is not exclusively associated with high

**Table 2** Hare PCL-R Scores: Adult and JTA Subjects

| Variable | Adults $n = 27$ | JTA $n = 29$ | Statistic $\chi^2$ | $p$ |
|---|---|---|---|---|
| High (≥30) | 70.4% | 28.6% | 10.00 | .007 |
| Medium (20–29) | 25.5% | 67.9% | | |
| Low (≤19) | 3.2% | 3.6% | | |
| Mean (SD) | | | | |
| PCL-R Total Score | 31.6 (6.3) | 26.8 (5.1) | 14.74 | .0001 |

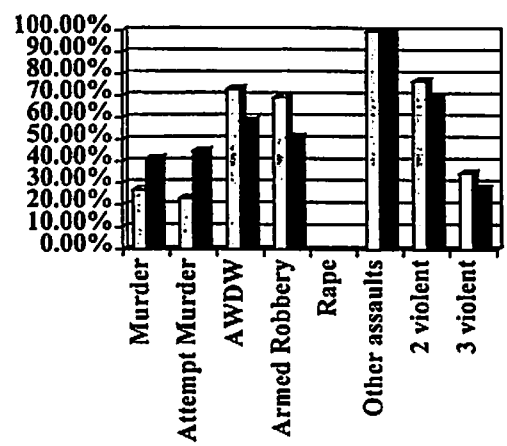


Figure 1. Criminal history among Adults (□) and JTA (■).

psychopathy scores. The JTA sample had almost 70 percent of its subjects showing a moderate psychopathy level and similar rates of violence.

Figure 1 shows the criminal histories for the Adult and JTA samples and depicts the precocious criminal activity of the youths as similar to "career criminals." Despite the differences in age, both groups had relatively similar histories of criminal convictions that were not statistically different. The JTA sample had proportionately more murder (41.4%) and attempted murder convictions (44.8%) compared with the Adult sample. Both groups were considered habitually violent, as 100 percent of both samples reported violent assaults on others without being charged. Relatedly, rates of violent recidivism, measured by two or more violent charges were similar.

Generally intact neuropsychological test patterns commensurate with educational levels were observed in both samples. Both groups achieved low average to average range scores on WAIS-R subtests of Similarities, Block Design, and Digit Span. The JTA sample was significantly lower ($f(1, 54) = 9.0$, $p = .004$) than the Adult sample on an intelligence subtest measure of acquired knowledge (WAIS-R, Information: JTA, $M = 5.79$, $SD = 1.8$; Adult, $M = 7.58$, $SD = 2.6$). There were no statistically significant differences on the number of WSCT categories achieved or errors. The Adult sample had a significantly higher mean number of perseverative responses ($f(1, 54) = 6.1$, $p = .02$); Adult, $M = 27.92$, $SD = 15.64$; JTA, $M = 18.38$, $SD = 13.05$). The Adult criminal sample had significantly greater number of perseverative errors ($f(1, 54) = 5.4$, $p = .02$; Adult, $M = 21.46$, $SD = 10.52$; JTA, $M = 15.1$, $SD = 9.93$). The Adult sample scored at the 8th percentile on perseverative responses (PR) on the WCST as compared with the 45th percentile on the same measure for the JTA. On total perseverative errors (PE), the Adults scored at the 14th percentile and the Juveniles at the 50th. On a semantic verbal fluency test (FAS), both groups achieved average range scores. The JTA sample also produced significantly lower scores on a measure of immediate verbal prose memory (WMS-R Logical Memory I; $f = 4.1$, $p = .05$); Adult, $M = 27.5$, $SD = 16.9$; JTA, $M = 18.85$, $SD = 14.0$). There were no statistically significant differences between the groups on WMS-R visual reproduction where both groups scored in the average range. Both groups scored in the average range on tasks of simple and complex visual attention (Trails Making, A and B). On a verbal learning test (RAVLT) there were no differences between the groups in terms of mean number of items learned across five trials, immediate recognition, or on the interference trial. Both groups scored in the low average range.

### *Other Demographics: Juveniles Tried as Adults*

Our data showed that violent recidivistic juveniles tried as adults were similar in most respects to hardened "career criminals." A close look at the backgrounds of the JTAs reveals that 96 percent were involved in gangs, 0 percent admitted to a history of sexual abuse, and 21 percent admitted to childhood physical abuse. One hundred percent of the JTAs had committed hand-to-hand physical assaults, 65 percent had used guns in a violent assault upon another person not resulting in arrest, and 93 percent had used a gun in a violent crime upon another person leading to arrest. Overall, 96 percent of the sample had used guns in violent episodes against others, with or without arrests.

### *Demographic Profiles of Juveniles Who Murder*

We were interested to know whether there were any observable patterns between substance abuse history and the JTAs in the present sample who committed murder ($n = 12$). In this small sample, those who committed murder had a 25 percent rate of abusing only marijuana versus those who did not commit murder. Those who committed murder reported a history of use of alcohol, marijuana, and one "hard drug" (cocaine, amphetamine, or hallucinogen) at only an 8.3 percent level versus a 17.6 percent level for those who did not commit murder. Those who committed murder had a 0 percent rate of polydrug abuse (use of three or more drugs excluding alcohol), whereas those who did not commit murder had a 47.1 percent rate of such abuse.

Psychopathy level was also compared in the JTA sample; those who had committed murder were compared with those who had not to determine whether a psychopathic personality constellation was associated with homicide. Twenty-five percent of the JTAs who had committed murder met the criteria for high psychopathy as defined by the PCL-R ($\geq 30$) as compared with 31.3 percent of those who did not commit murder; 75 percent of those who had committed murder fell in a moderate range (20–29) versus 62.5 percent of those who had not committed

murder. These differences were not statistically significant. Relatedly, there was no overall mean score difference on the total PCL-R score between juveniles who committed murder ($M = 26.08$, $SD = 5.4$) and those who did not ($M = 25.59$, $SD = 5.1$).

## Discussion

One of the most compelling findings in this study was the similarity in violent criminal history and assaultiveness between the juvenile offenders tried as adults compared with adult offenders with extensive criminal histories. The juvenile offenders, with a mean age of 20 at the time of testing, had in their short histories managed to approximate the violence of more hardened adult felons in their rates of arrests for murder, attempted murder, assault with a deadly weapon, and armed robbery. This finding is consistent with those of the Bureau of Justice Statistics[13] and also appears to validate placement of these juvenile offenders in a penal rather than a rehabilitative system.

The literature suggests the presence of physical and sexual abuse as correlates of severe conduct disorder and adult antisocial behavior. Lewis[29] reported that maltreatment of children, both by abuse and neglect, exacerbates vulnerabilities that lead to increased impulsivity and enhanced violence. Surprisingly, the rate of reported physical and sexual abuse in our juvenile offender sample was very low. It is possible that this finding reflects under-reporting, although it seems unlikely given the self-reports of personal violence on other data that were corroborated in the records.[30] Although we do not have complete data in our study regarding familial antisocial style, a portion of our sample indicated that older siblings and sometimes fathers, had previously been gang members. Despite their denial of physical abuse, the high percentage of gang membership among our sample suggests that these youthful offenders had been reared in an environment of social violence.

We did find that the majority of the juvenile offenders were gang members and strongly identified with the violent culture of the gangs, particularly the use of guns as their preferred weapon. Our youthful offenders, by definition, are representative of the most violent subgroup of delinquent youths. Tragically, a staggering proportion of these individuals was able to access and utilize guns. The implication of weapons availability among violent youthful offenders underscores the problems of supervision and community control of repeat delinquents. Sheley and Wright[41] surveyed the motivation for gun possession among criminally inclined youths (ages 12 to 21) and found two distinct but associated factors that contributed to arms possession. These youths were heavily involved in gun-related crime, and they carried firearms for protection.

Among our sample, we found that 62 percent were Hispanic. Because this was not consistent in the adult sample, we did not consider it to be a mirror of the racial distribution of the offender population in California. Federal statistics have not differentiated races beyond white, black, and other, and no apparent explanation for the high percentage of Hispanic youth in this sample was suggested. Of concern would be the manner in which evaluations of the fitness for being tried as a juvenile were conducted and the cultural biases of either the evaluators or the courts to disproportionately try Hispanic gang members as adults.[42, 43] Ruback and Vardaman[44] found that the race of the juvenile offender was not a contributing factor to the adjudication of the case. Therefore, the degree of violence representative of this sample may have been the determining factor in these judicial decisions. The result remains a critical, yet intriguing finding.

Drug use patterns among the juvenile offenders and older offenders differed. The youthful sample overwhelmingly used alcohol and marijuana; however, their abuse of PCP was nearly fifty percent (44.8%) and of cocaine 37 percent. The adult offenders also used alcohol and marijuana, but they had broadened their substance use to include intravenous drugs, cocaine, and amphetamines. This pattern of drug misuse may reflect generational cohort effects. Interestingly, in the subsample of youths who had committed murder, the substance abuse histories were less severe (i.e., use of marijuana primarily), whereas those who did not commit murder were poly-substance abusers. Because youths who committed murder were such a small subsample ($N = 12$), these data should be interpreted very cautiously. The high rate of substance abuse in the overall sample of juveniles whose criminal behaviors were violent is in keeping with earlier work linking substance abuse to violent crimes.[45, 46] Bureau of Justice statistics from 1988 reported that 45 percent of all institutionalized juvenile offenders were under the influence of drugs at the time of the commission of the

homicide. The youthful offenders in our sample reported the first use of alcohol in pre-pubescence (between the ages of 10 and 12). The early use of substances in our violent youthful sample may be a factor contributing to the development of conduct disorder and as such is an issue that merits further study.

The pattern of neuropsychological functioning in the juvenile offenders reflected a low average range of scores on most measures, with the poorest performance on tests influenced by education. The pattern was similar to that found in the adult offenders, with the exception that the youthful offenders revealed better nonverbal abstraction skills but lower verbal memory. The adult offenders, by contrast, exhibited a "perseverative style" associated with abstraction skills and prefrontal lobe deficits. The adults also exhibited types of frontal lobe deficits that have historically been linked to recidivistic violence. This finding points to different correlates of violence in these adult offenders. Cognitive impulsivity may be a strong factor in their repeated failure to learn from experience, successfully complete parole, and avoid reincarceration. The learning curve for verbal materials was similar between the two groups, both curves reflecting a lower end average ability to learn and process verbal material. The cognitive data in the youthful offenders were surprisingly intact given the reported number of head injuries and the level of substance abuse. Prior work in this arena has suggested an interaction between neuropsychiatric impairment and violent criminal behavior. In our sample of juvenile offenders, the relative intactness of cognitive functioning, that is, measuring in a low average range and commensurate with an average of 10 years of education, was an unexpected finding. The correlates of violence in our JTA sample appeared to be less related to neuropsychological impairment and more related to the use of substances, despite the wide range in substance use found. However, as judicial and medical advocates for youth have articulated, an assessment of the specific causes of juvenile delinquency must be established in each individual case.[47, 48]

Substance abuse, gang membership, and the availability of guns were the salient factors associated with the extreme violence exhibited by our sample of juvenile offenders. Consistent with the antisocial contribution of gang membership were the results of the PCL-R. This inventory, based on interviews and documented information, was normed on a Canadian criminal sample that is widely used in the United States, both in research and clinical practice. Recent work by Brandt *et al.*[49] has extended the use of this inventory to the juvenile population. Conceptually, Hare established the cutoff of 30 as the threshold for psychopathy. However, recent studies have suggested that cutoffs of 25 or greater were significant for predicting violent recidivism.[50, 51] The mean scores of the juveniles were in the moderate range ($M = 26.8$) and for the adults in the high psychopathy range ($M = 31.6$). Gang affiliation, present in almost the entire JTA sample despite lower psychopathy levels, appears to be associated with violence. Although the PCL-R mean scores were significantly different, these scores revealed a high degree of character pathology in both groups. This finding is of interest because many of the historically based (Factor II) items such as promiscuous sexual history, criminal versatility, and number of conditional release failures, are related to age and behavior. Despite the relative youth of our juveniles, their loading on the characterologic (Factor I) items (irresponsibility, absence of guilt, wanton victimization of others) was so significant, that they earned scores indicative of significant psychopathy. These results illustrate that this highly violent juvenile sample has both the behavioral and attitudinal commitment to a violent predatory lifestyle, reflected by their gang affiliations and Factors I and II of the PCL-R. Further, our data support the proposition that these violent adolescents should be subjected to the same range of penalties as adult defendants.[52]

Obviously, the sample described in this study represents a small but troublesome segment of juvenile offenders. The level of their repeated violent behavior has rendered them "unamenable" to the rehabilitation efforts of the juvenile system. Generalization to the larger population of juvenile offenders is thereby limited. The authors are presently collaborating in additional research into juvenile offenders found fit for rehabilitation. The differences found between these segments of the juvenile offending population should assist in informing the dispositional decisions for these groups.

Although rehabilitation has been the stance of the juvenile justice system, the juvenile courts' rehabilitative efforts with this sample of habitually offending juveniles later tried as adults were clearly unsuccessful. The profiles offered in our study of these youth

are of individuals with severe levels of psychopathy and a recidivistic propensity for violent behavior. The window of opportunity for meaningful intervention would appear to occur at the first indication of delinquency, before an entrenched criminal attitude and behavior pattern has begun.[53, 54] Gang involvement was a major factor in our sample of high violence juveniles. Prevention strategies that target gang affiliation are apt to be the prevention strategies of choice. Issues for further study, and in light of our finding of early onset use of alcohol among the JTA, would be prevention models beginning in elementary school that target the promotion of prosocial activities and alternatives to drug use.[55–58]

## Acknowledgment

The authors thank Officer Ziska and his colleagues at the California Institution for Men for their assistance.

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